



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3490-3

Job Sheet 171429



Part No: D3490-3

Job Qty: 80 ea

Part Name: Cross Bolt Spacer



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 2/1/18

Job Tracking No:

Due Date: 2/12/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: DWG REV A IPP Rev:A New Issue 06-03-03 JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	80 Ea	2/9/18	2/9/18	0.00	0.00	Start Up Machining-2		J.B. 23
100	Hardinge	80 pcs	2/10/18	2/10/18	0.00	8.79	Hardinge		J.B. 9.80
120	QC	80 pcs	2/10/18	2/10/18	0.00	0.00	QC8		2/18/02/08
124	HandFinish	80 pcs	2/12/18	2/12/18	0.00	0.76	HandFinish4		DE
130	Packaging	80 pcs	2/12/18	2/12/18	0.00	0.00	Packaging3-1		DE
140	QC21-SA	80 Ea	2/12/18	2/12/18	0.00	0.00	QC21		DAS

Part Op 100 - 1-TURN AS PER FOLIO FA629 & DWG D3490
Descriptions: 124 - CLEAN CROSSBOLT SPACER WITH ALUMINUM CLEANNER
130 - ***STOCK IN SKIDTUBE CELL***

21 FEB 26 2018
9-80

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6R0.750	6061-T6 Round Bar .750"	21.2800 ft (.266 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M6061T6R0.750	21	50	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Crossbolt Spacer	3.085inches + 0.030 - 0.000	3.115 3.085		
2	Crossbolt Spacer	0.080inches ± 0.010	0.090 0.070		
3	Crossbolt Spacer	0.050inches ± 0.010	0.060 0.040		
4	Crossbolt Spacer	45.0Degrees ± 0.0	0.0 0.0		

Plex 2/1/18 9:38 AM Dart.Gagnon.Michelle

DART
AEROSPACE
S040318

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Cross Bolt Spacer

PART NO: D3490 – 3

Original Serial #: S040318

Revision:

Operation: Start up Operation 02/07/18

Change No:

Job No: 171429

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DART AEROSPACE LTD	Work Order:	171429
Description: Crossbolt Spacer	Part Number:	D3490-3
Inspection Dwg: D3490 Rev: A		Page 1 of 1

INSPECTION SHEET

[illegible]

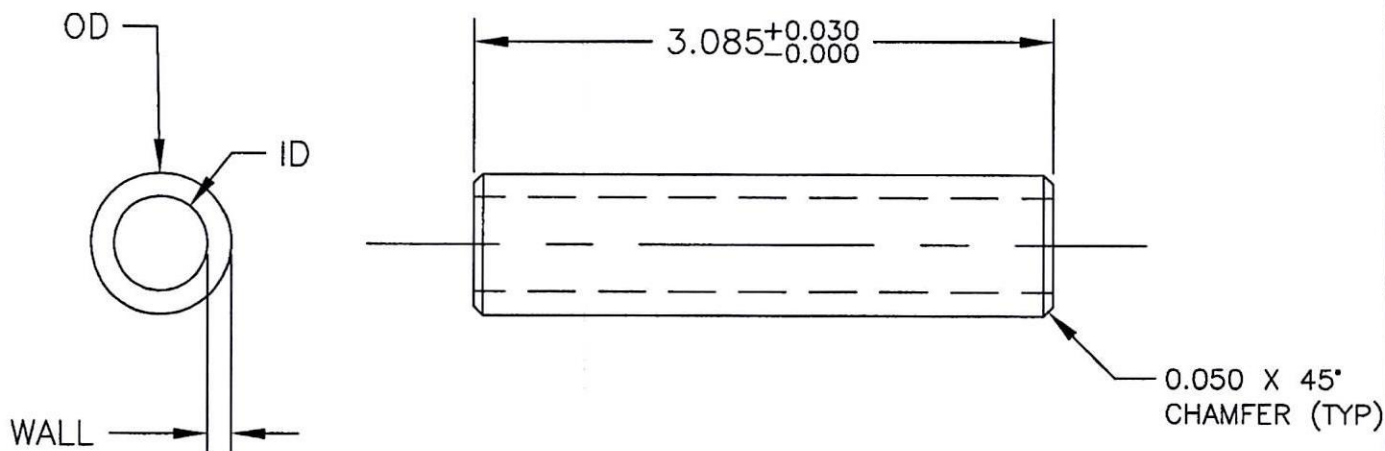
Measured by: Jonathan Bo	Checked by: [Signature]	QC Inspector:
Date: 9-89	Date: 18/02/08	Date:

Engineering Approval: (If necessary)		Date:	
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Rev	Date	Change	Revised by	Approved
A	06.10.27	New Issue	KJ/JLM	
B	15.03.03	Dimension Ø0.591 removed	KJ	



DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3490	REV. A SHEET 1 OF 1
DATE 06.01.04		TITLE CROSS BOLT SPACER	SCALE NTS
A	06.01.04	NEW ISSUE	



D3490-1/-3/-5 CROSS BOLT SPACER PARTS LIST

PART NUMBER	OD	WALL	ID (REF)	MATERIAL SPEC
D3490-1	0.500	0.049	0.402	M6061T6T0.500W.049
D3490-3	0.750	0.080	0.591	M6061T6R0.750
D3490-5	0.313	0.058	0.197	M6061T6T0.313W.058

D3490-1/-3/-5 CROSS BOLT SPACER

- 1) MATERIAL: ALUMINUM 6061-T6 (QQ-A-200/8 OR QQ-A-225/8)
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171429

FEB 01 2018

RELEASED
de 02-07

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